CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 20010067 CHESHIRE MONITORING
Metals

☑ Chain-of-Custody

☑ Analysis Request Form(s)*

☐ Sample Tags

☑ Transmittal Report w/signatures of the following:

- Analyst (s)
- Data Management Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by: Sylvia Griffin 9-4-01
Data Management Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: SEP 0 4 2001

Subject: Review of Region 5 Data for **Cheshire Monitoring Study**

From: **John V. Morris, Chemist**
Region 5 Central Regional Laboratory

To:

Attached are the results for: **Cheshire Monitoring Study**

CRL data set number: **20010067**

Samples analyzed for: **Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Magmesium, Manganese, Nickel and Selenium**

Results are reported for sample designations: **2001AH04S01, 2001AH04D01, 2001AH04S02 and 2001AH04S03**

SEP 0 4 2001 / /

Data Management Coordinator and Date Received

Date Transmitted: SEP 0 4 2001 / /

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

/ /

Received by and Date

Comments:

Central Regional Laboratory, RMD, Region 5
Customer Satisfaction Survey

The purpose of this survey is to collect information from you about your recent experience with analytical services received from the Region 5 Central Regional Laboratory (CRL). This survey is divided into 4 sections. Please fill out the information in each section as requested. Then in Section C, supply your name and contact information, and submit the form as directed at the end of the survey.

Section A -- Sample Requests

Please respond to the following questions as accurately as possible. If you have additional comments beyond the space provided, please send them to George Schupp, CRL Sample Coordinator, at ML-10C (See Form Submission).

1. What is your CRL Data Set Number(s) [i.e., the 8-digit number beginning with the 4-digit FY and followed by a 4 digit number]? (Eg. 20010099) _____

2. How easy was it to schedule samples? :

   Easy: _____ Difficult: _____

3. If not "Easy", please provide a brief explanation:

SECTION B -- Analytical Services

Please respond to the following questions concerning the analysis of your samples.

1. Overall, how would you rate the CRL analytical services you received?

   Bad ___ ; Poor ___ ; Fair ___ ; Good ___ ; Excellent ___

2. If not "Good" or "Excellent", what was the problem?

3. What type of analytical services did you request (eg, analysis of samples, etc.; lab audit; document review, other)?

4. Who performed the analytical service(s) (CRL EPA Staff, ESAT)?

SECTION C -- Comments and Suggestions

Please provide specific comments or suggestions for improving any of the aspects of CRL Analytical Services:

If you would like additional information on CRL Analytical Services, The CRL Board of Directors, or the Sample Request Process, please indicate below (✓) and provide your name and mail code).

Analytical Services ____; CRL Board of Directors _____; Sample Requests _____

Name: _____ Mail Code: _____

FORM SUBMISSION

Thank you for taking the time to answer the questions in our survey. You will receive a confirmation message from us shortly.

We will review your survey and respond to any specific concerns or problems ASAP. Your survey and others will be evaluated for trends in an effort to establish efficient support and analytical processes. The process at each stage of the analytical services we provide are critical links towards giving you the kind of timely, accurate analytical services you need. This data will also be tracked by our management and the Board of Directors so additional customer feedback can be used to plan CRL activities in the future.

Please forward this completed survey to:

CRL Sample Coordinator at Mail code: ML-10C

Please go to the following e-mail address at: schupp.george@epa.gov to request an electronic copy of this survey or call 312-353-1226.

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated *B*lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (*J* is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL *M*ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is estimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te*N*tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or *Q*uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are *R*ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed for but *U*ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

Date: 31 August 2001
Analyst: John V. Morris
Sample Batch Number: 20010060,20010062&20010067
Facility Name: Cheshire Monitoring Study
Analyte: ICP Metals

Narrative for the Analysis of Metals in Water in Batches 20010060,62&67

On 21, 22 and 27 August 2001, three batches of air filters, comprising four filters each were received at CRL for the analysis of metals. The sample descriptions are given in tabular form:

Batch No.	Sample ID	Serial No.	Collection Date	Station ID
20010060	2001AH03S01	G6093525	5 August 2001	GUIDING HANDS
	2001AH03D01	G6093526	5 August 2001	GUIDING HANDS
	2001AH03S02	G6093527	5 August 2001	RVHS
	2001AH03S03	G6093528	5 August 2001	ADDAVILLE
20010062	2001AH03S04	G6093519	11 August 2001	GUIDING HANDS SCHOOL
	2001AH03D02	G6093521	11 August 2001	GUIDING HANDS SCHOOL
	2001AH03S05	G6093520	11 August 2001	RIVER VALLEY SCHOOL
	2001AH03S06	G6093523	11 August 2001	ADDAVILLE
20010067	2001AH04S01	G6093515	17 August 2001	GUIDING HANDS SCHOOL
	2001AH04D01	G6093516	17 August 2001	GUIDING HANDS SCHOOL
	2001AH04S02	G6093517	17 August 2001	RIVER VALLEY SCHOOL
	2001AH03S03	G6093518	17 August 2001	ADDAVILLE

Batch 20010060 was received on 21 August 2001, batch 20010062 was received on 22 August 2001, and batch 20010067 was received on 27 August 2001. Batch 20010062 arrived with the same sample numbers as those on batch 20010060. After telephone calls to Scott Hamilton and Mike Murphy of OEPA, Scott Hamilton gave instructions to change the numbers on the second set so that analyses could proceed. The analysis was limited to the metals listed on page 15 of the QAPP (attached).

The samples were prepared on 28 August 2001. Method Metals_006, a hot block adaptation of the beaker digestion given in 40 CFR Part 50, Appendix G, was used for the digestion. The

Date: 31 August 2001
Analyst: John V. Morris
Sample Batch Number: 20010060,20010062&20010067
Facility Name: Cheshire Monitoring Study
Analyte: ICP Metals

digestion log number was 1300. There are no holding times for the air program. Duplicate filter strips from batches 20010051 and 20010052 were included with this digestion, as those were neglected when those batches were prepared.

Three filter blanks were taken from the same lot as the filters used in this study. These three filters were the same as those used in the previous digestion. Some of the elements, such as barium and iron, were significantly greater this time than last, while the analyses with digest log 1291 were consistent with an earlier analysis of the same filter lot. Those analyses, totaling eight filters, were averaged, and a standard deviation calculated for the purpose of determining true reporting limits for barium, chromium, iron, magnesium and nickel. These elements were blank subtracted, and the elevated reporting limits derived from the multiple blank values were applied. Also, there is insufficient information supplied by the field to determine the air volume, so the data for all metals are presented as µg/filter.

The analysis was performed on 30 August 2001 using method Metals_003, using the Perkin-Elmer 3300DV ICP. The yttrium internal standard readings were consistent throughout the run.

For the thirteen metals reported for this study, all instrument check standards (LCM1, LCM2, Hi AQC) were in control, except for the first cadmium LCM1 (112% recovery). This affected only the cadmium results for the report level check (RLC) and the spectral interference check (SIC) solutions. For blanks straddling the sample results, beryllium, copper and magnesium were the only reported elements with flags on the instrument blank (LCB). For beryllium, the blanks are all positive, while the sample results are all non-detects, so the data was not flagged. For copper and magnesium, the data was all much higher than the reporting limit, so the data was not flagged. For the digestion blank, copper, iron, magnesium, nickel and selenium were outside the limits of ± MDL, but either the data were much greater or otherwise did not affect the data. For copper, the RLC was not recovered well, but the difference between the RLC result (0.002 mg/L) and the instrument blank (-0.002 mg/L) was just the RLC concentration. As stated above, the copper data were all much higher than the blank, so the data were not flagged. Spike recoveries for both the spiked blank (LFB) and the spiked filter blank are within the expected 100±15%. All the SIC solutions show no problems for these samples, as the concentrations of any interfering species are quite low.

Two digests were greater than the calibration standard for copper, 2001AH04S01, and the duplicate for 2001AH03S04. These were reanalyzed in the run 08301a. Initially, the analyst did not notice the internal standard was not drawing in this run, but this was found and the run restarted. Also, the first 2x dilutions were judged faulty, and the dilutions remade. The results for copper of these dilutions were included in the results.

It is worthy of note that the co-located sample pair 2001AH04S01 and 2001AH04D01 results are

Date: 31 August 2001
Analyst: John V. Morris
Sample Batch Number: 20010060,20010062&20010067
Facility Name: Cheshire Monitoring Study
Analyte: ICP Metals

quite different, unlike the other sample sets. Upon examination of the filter material itself, the exposed portion is much darker for the sample 2001AH04S01 than for sample 2001AH04D01, as is consistent with the analytical results.

The duplicate filters are generally within about ±20% for the metals that are significantly above reporting limits. The exception to this is the duplicate for 2001AH01S02, which was analyzed on different days. Copper was significantly lower on the duplicate than on the initial analysis of this filter.

All analytical results files, sample information files and reformat files for ICP analysis can be found on the R5CRL data server using the following path:
h:\r5crl\vol3\metals\jvmorris\20010060_62_67\3300dv\

The narrative, QC summary spreadsheets, sample result calculation spreadsheets and the final sample report for ICP analysis can be found on the R5CRL data server using the following path:
h:\r5crl\vol3\metals\jvmorris\20010060_62_67\reports\

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2001AH04S01	Station ID:	GUIDING HANDS SCHOOL
Sample Batch Number:	20010067	Study:	Cheshire Monitoring Study
Collection Date:	17 Aug 01	Filter SN:	G6093515
Analysis Date:	30 Aug 01		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	1100		µg/filter
Iron	383		µg/filter
Lead	17.7		µg/filter
Magnesium	343	U	µg/filter
Manganese	11.5		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

31 Aug 01

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2001AH04D01	Station ID:	GUIDING HANDS SCHOOL
Sample Batch Number:	20010067	Study:	Cheshire Monitoring Study
Collection Date:	17 Aug 01	Filter SN:	G6093516
Analysis Date:	30 Aug 01		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	90.8		µg/filter
Iron	420		µg/filter
Lead	6.60		µg/filter
Magnesium	343	U	µg/filter
Manganese	12.7		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

31 Aug 01

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2001AH04S02	Station ID:	RIVER VALLEY SCHOOL
Sample Batch Number:	20010067	Study:	Cheshire Monitoring Study
Collection Date:	17 Aug 01	Filter SN:	G6093517
Analysis Date:	30 Aug 01		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	0.6	U	µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	136		µg/filter
Iron	190		µg/filter
Lead	6	U	µg/filter
Magnesium	343	U	µg/filter
Manganese	8.30		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

31 Aug 01

US EPA CRL - Region V
ICP Final Report Results
Air Filters

Sample Number:	2001AH04S03	Station ID:	ADDAVILLE
Sample Batch Number:	20010067	Study:	Cheshire Monitoring Study
Collection Date:	17 Aug 01	Filter SN:	G6093518
Analysis Date:	30 Aug 01		

Element	Concentration		Units
Arsenic	9	U	µg/filter
Barium	95	U	µg/filter
Beryllium	0.6	U	µg/filter
Cadmium	1.08		µg/filter
Chromium	3.14	U	µg/filter
Cobalt	1.2	U	µg/filter
Copper	56.4		µg/filter
Iron	216	U	µg/filter
Lead	6	U	µg/filter
Magnesium	343	U	µg/filter
Manganese	10.4		µg/filter
Nickel	5.73	U	µg/filter
Selenium	18	U	µg/filter

31 Aug 01

CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 2001 0067 Cheshire Monitoring Suspended Particles

☑ Chain-of-Custody

☑ Analysis Request Form(s)*

☐ Sample Tags

☑ Transmittal Report w/signatures of the following

- Analyst(s)
- Peer reviewer
- Data Management Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations.

Prepared by: Sylvia Griffin 9-5-2001
Data Management Coordinator

Rev. 6/12/00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: SEP 0 5 2001

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Francis A. Awanya, Chemist** FAA
Region 5 Central Regional Laboratory

To:

Attached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20010067**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2001AH04D01, 2001AH04S01, 2001AH04S02, and 2001AH04S03.**

SEP 0 5 2001

Data Management Coordinator and Date Received

Date Transmitted: SEP 0 5 2001

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____ / /

Received by and Date

Comments:

Data Set Number:	*20010067*	**Parameter:**	*Suspended Particles*
Facility Name:	*CHESHIRE MONITORING STUDY*		
Study Name:	*CHESHIRE MONITORING STUDY*		
Date of Narrative:	*09/04/2001*	**Analyst:**	*FAA*
		Signature:	FAA

ANALYSIS CASE NARRATIVE

Three (3) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on August 27, 2001. These four filters were fractions of 22 clean filters, prepared at the CRL between July 13 and 17, 2001 and sent to the field for exposure. Filter preparations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters were completed on 8/29/2001. All the suspended particle results are acceptable for use.

Filters ID	Samples ID	Tag Number
G1006680	2001AH04D01	5-340035-2
G1006683	2001AH04S01	5-340034-2
G1006685	2001AH04S02	5-340036-2
G1006686	2001AH04S03	5-340037-2

Parameter: Suspended Particles **CRL.SOP AIG047**

Data Set Numbers: 20010060, 20010062, 20010067

Date of Analysis 8/29/2002

Analyst: FAA

Filter ID Numbers	CRL Sample I.D Numbers	Sample Tag Numbers	Station Location	Site	Pstg Avg	Weight of cond. filters (g)	Exposed weight (g)	Suspended Particle (g/Filter)
Data set Number 20010067								
G1006686	2001AH04S03	5-340037-2	Addaville	#3011	15.30	4.4220	4.4517	0.0297
G1006685	2001AH04S02	5-340036-2	River Valley High	#3009	15.65	4.4201	4.4400	0.0199
G1006680	2001AH04D01	5-340035-2	Guiding Hand School	#3013	14.55	4.4226	4.4870	0.0644
G1006683	2001AH04S01	5-340034-2	Guiding Hand School	#3012	15.45	4.4116	4.4799	0.0683
Data set Number 20010062								
G1006677	2001AH03S05	5-340039-2	River Valley School	RVHS#3009	15.95	4.3830	4.4878	0.1048
G1006676	2001AH03D02	5-340038-2	Guiding Hand School	GHS #3013 Dup	14.45	4.3786	4.4261	0.0475
G1006673	2001AH03S04	5-340041-2	Guiding Hand School	GHS #3012	15.05	4.4143	4.4643	0.0500
G1006665	2001AH03S06	5-340040-2	Addaville	Addaville#3011	15.65	4.4076	4.4663	0.0587
Data set Number 20010060								
G1006671	2001AH03S01	5-340030-2	Guiding Hands	Serial#3012	15.40	4.3722	4.4039	0.0317
G1006669	2001AH03D01	5-340031-2	Guiding Hands	Serial#3013	15.30	4.4150	4.4487	0.0337
G1006667	2001AH03S02	5-340032-2	RVHS	Serial#3009	15.55	4.4152	4.4946	0.0794

Project No. 01AH04 Project Name CHESHIRE MONITORING STUDY AIR 20010067 ARRIVAL DATE: 8/27/2001 901071A DUE DATE: 9/4/2001

Sampler
Mike Murphy

Cooler ID 01AH041 Page 5-140008

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH04DO1	DO1	17/08/2001 00:00:00	◯ Grab ● Com	GUIDING HANDS SCHOOL	2	5-340035 1 to 2

Bottle No. 1 Parameter
Metal analysis by ICP

Bottle No. 2 Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH04SO1	SO1	17/08/2001 00:00:00	◯ Grab ● Com	GUIDING HANDS SCHOOL	2	5-340034 1 to 2

Bottle No. 1 Parameter
Metal analysis by ICP

Bottle No. 2 Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH04SO2	SO2	17/08/2001 00:00:00	◯ Grab ● Com	RIVER VALLEY SCHOOL	2	5-340036 1 to 2

Bottle No. 1 Parameter
Metal analysis by ICP

Bottle No. 2 Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
01AH04SO3	SO3	17/08/2001 00:00:00	◯ Grab ● Com	ADDAVILLE	2	5-340037 1 to 2

Bottle No. 1 Parameter
Metal analysis by ICP

Bottle No. 2 Parameter
PM10

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

PROJ. NO. 01AH04

PROJECT NAME: Cheshire Monitoring Study

ORIGINAL

Activity Code: ~~12345~~ 90101A

SAMPLERS: *(Print Name and Sign)*
Mike Murphy Mike Murphy Mike Murphy OEPA

AIR 20010067

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte	TAG NUMBERS
DO1	8/17	00:00	X		GUIDING HANDS SCHOOL	2		5-340035 1 to 2
SO1	8/17	00:00	X		GUIDING HANDS SCHOOL	2		5-340034 1 to 2
SO2	8/17	00:00	X		RIVER VALLEY SCHOOL	2		5-340036 1 to 2
SO3	8/17	00:00	X		ADDAVILLE	2		5-340037 1 to 2
								Guiding Hands school
								#3012, PSIG = 15.45 Avg
								#3013, PSIG = 14.55 Avg
								River Valley High school
								#3007, PSIG = 15.65 Avg
								Addaville school
								#3011, PSIG = 15.3 Avg

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Ship To:
Mike Murphy	8-22-01 10:18		
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	ATTN:
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time
			8/27/01 14:30

Airbill Number: UPS# 1Z401 1990 3401 4 9400

Chain of Custody Seal Numbers

5-140008

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION **SAMPLING DATE:** 08/27/2001 **LAB ARRIVAL DATE:** 08/21/2001 **DUE DATE:** 09/04/2001
DU NUMBER: 90101A **DATA SET NUMBER:** 20010067 **STUDY:** CHESHIRE MONITORING STUDY **PRIORITY:** 1 **LABORATORY :**CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2001AH04D01	GUIDING HANDS SCHOOL	0.0644			
2	2001AH04S01	GUIDING HANDS SCHOOL	0.0683			
3	2001AH04S02	RIVER VALLEY SCHOOL	0.0199			
4	2001AH04S03	ADDAVILLE	0.0297			
DATE OF ANALYSIS			08/29/2001			
ANALYST			FAA			

Reviewed by: E.S Date: 9/4/2001

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20010067 Facility: CHESHIRE MONITORING STUDY

Parameter: SUSPENDED PARTICLES CRL SOP: AIG047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	✓	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: RAA Peer Reviewer: ES

Date: 8/31/2001 Date: 9/4/2001

Comments Attached? (Y/N) N

Parameter: Suspended Particles **CRL.SOP AIG047**

Data Set Numbers: 20010060, 20010062, 20010067

Date of Analysis 8/29/2002

Analyst: FAA

Filter ID Numbers	CRL Sample I.D Numbers	Sample Tag Numbers	Station Location	Site	Pstg Avg	Weight of cond. filters (g)	Exposed weight (g)	Suspended Particle (g/Filter)
Data set Number 20010067								
G1006686	2001AH04S03	5-340037-2	Addaville	#3011	15.30	4.4220	4.4517	0.0297
G1006685	2001AH04S02	5-340036-2	River Valley High	#3009	15.65	4.4201	4.4400	0.0199
G1006680	2001AH04D01	5-340035-2	Guiding Hand School	#3013	14.55	4.4226	4.4870	0.0644
G1006683	2001AH04S01	5-340034-2	Guiding Hand School	#3012	15.45	4.4116	4.4799	0.0683
Data set Number 20010062								
G1006677	2001AH03S05	5-340039-2	River Valley School	RVHS#3009	15.95	4.3830	4.4878	0.1048
G1006676	2001AH03D02	5-340038-2	Guiding Hand School	GHS #3013 Dup	14.45	4.3786	4.4261	0.0475
G1006673	2001AH03S04	5-340041-2	Guiding Hand School	GHS #3012	15.05	4.4143	4.4643	0.0500
G1006665	2001AH03S06	5-340040-2	Addaville	Addaville#3011	15.65	4.4076	4.4663	0.0587
Data set Number 20010060								
G1006671	2001AH03S01	5-340030-2	Guiding Hands	Serial#3012	15.40	4.3722	4.4039	0.0317
G1006669	2001AH03D01	5-340031-2	Guiding Hands	Serial#3013	15.30	4.4150	4.4487	0.0337
G1006667	2001AH03S02	5-340032-2	RVHS	Serial#3009	15.55	4.4152	4.4946	0.0794

Parameter: Suspended Particles **CRL.SOP AIG047**

Data Set Numbers: 20010060, 20010062, 20010067

Date of Analysis 8/29/2002

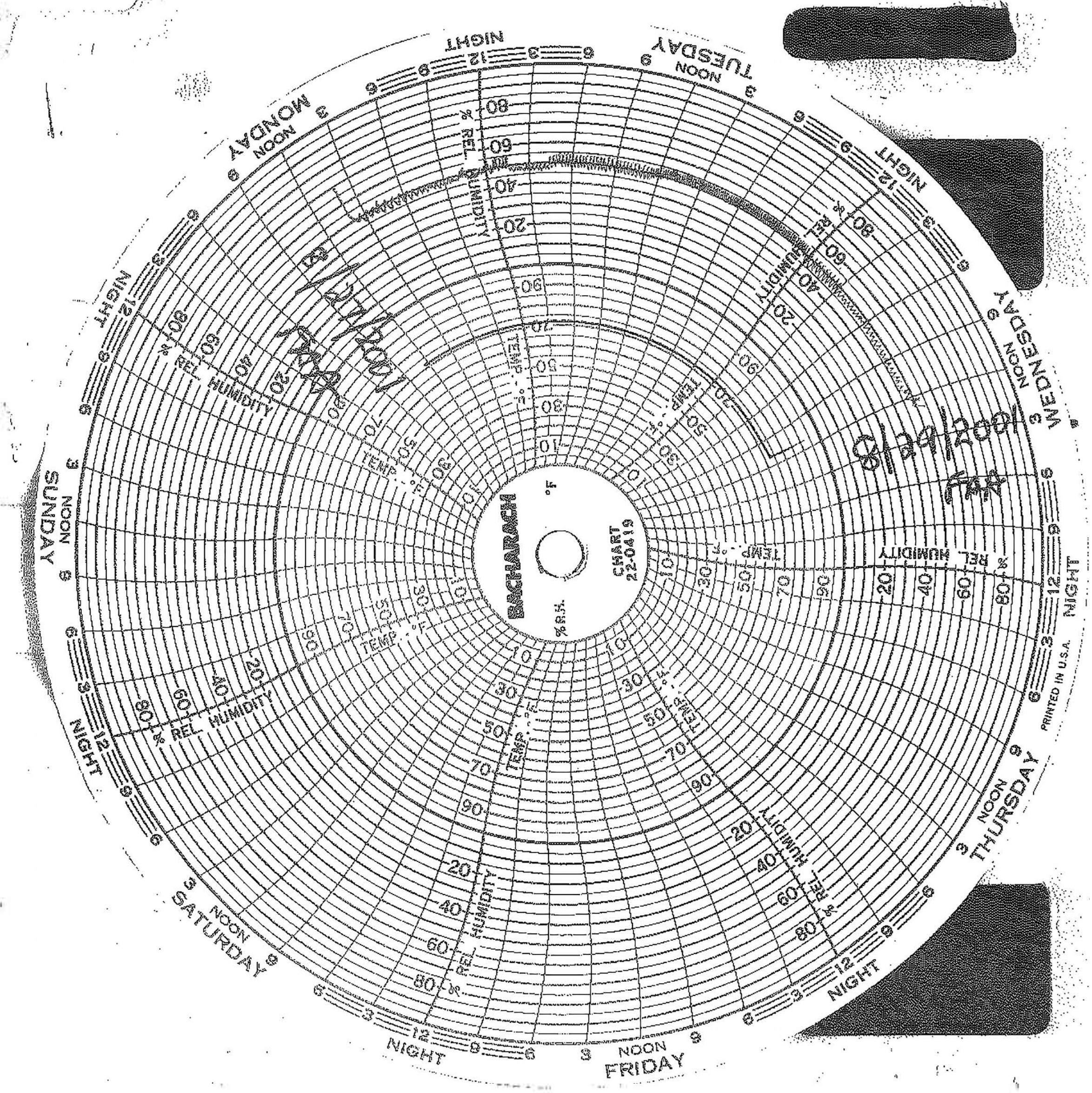
Analyst: FAA

BALANCE VERIFICATION		
Actual Standard Weight (A) (g)	Measured Balanced Weights (M) (g)	Difference From Actual Limit(+/- 0.0005g) (0.0005g)
8/29/01		
1.0000	1.0000	0.0000
1.0000	1.0000	0.0000
2.0000	1.9999	0.0001
2.0000	2.0000	0.0000
5.0000	5.0000	0.0000
5.0000	4.9999	0.0001

EXPOSED FILTER REPRODUCIBILITY						
Filter ID Numbers	CRL Sample I.D Numbers	Sample Tag Numbers	Weight of cond. filters (g)	Exposed weight (g) LD1	Exposed weight (g) LD2	Duplicate Differences Limit (0+/- 5mg) (0.0050g)
Data set Number 20010067						
G1006683	2001AH04S01	5-340034-2	4.4116	4.4799	4.4801	0.0002
Data set Number 20010062						
G1006673	2001AH03S04	5-340041-2	4.4143	4.4643	4.4644	0.0001
G1006665	2001AH03S06	5-340040-2	4.4076	4.4663	4.4661	0.0002
Data set Number 20010060						
G1006669	2001AH03D01	5-340031-2	4.4150	4.4487	4.4492	0.0005

FILTER ID #	TARE Wt. (g)	DUPLICATE wt. (g)	EXPOSED Wt. (g)	EXPOSED DUP. Wt. (g)	Comments and/or (ZERO value)	FILT #
G1006694	4.4154	4.4145		-		
G1006692	4.4112			4.4359		
G1006690	4.4085					
G1006688	4.4083	4.4086 ~~4.4018~~				
G1006686	4.4220	4.4212		4.4513	4.4517	
G1006685	4.4201			4.4398	4.4400	
G1006680	4.4226			4.4871	4.4870	
G1006683	4.4116		E.S 4.4801	4.4900	4.4799	
G1006681	4.4283					
G1006677	4.3830	4.3820		4.4879	4.4878	
G1006676	4.3786			4.4257	4.4261	
G1006673	4.4143		4.4644 E.S 4.4652	4.4643	4.4643	
G1006671	4.3722			4.4041	4.4039	
G1006669	4.4150		E.S 4.4492	4.4485	4.4487	
G1006667	4.4152			4.4945	4.4946	
G1006665	4.4076		E.S 4.4661	4.4665	4.4663	
G1006663	4.3962			4.4599		
G1006661	4.4097	4.4092	4.4736	4.4734		
G1006659	4.4200			4.4864		
G1006657	4.4055			4.4724		
G1006656	4.4257			4.4717		
G1006695	4.3965					
7.16.01	AR					

General information	Standard weights, actual (g)	Balanced weights, balanced (g)
SARTORIOUS	1.0000 A	1.0000
SIN 37010119	1.0000 B	1.0000
8/29/2001	2.0000 A	1.9999
~~FAA~~	2.0000 B	2.0000
	5.0000 A	5.0000
	5.0000 B	4.9999
8/31/2001	0.10000	0.10000
METTLER AG285	~~0.20000~~ 8/21/01	~~0.20010~~ FAA 8/29
SIN 1120181838	0.20000	0.20001
	0.50000	0.50002


BACHARACH
CHART 22-0419
% R.H.
°F
TEMP. °F
% REL. HUMIDITY
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
NOON
NIGHT
PRINTED IN U.S.A.

Filter ID Number (A)	Tare Weight (g) (B)	CFRM1 or LD1 (C)	CFRM2 (g) (D)	Exposed weight (g) (E)	LD2 (g) (F)
G1006686	4.4220			4.4517	
G1006685	4.4201			4.4400	
G1006680	4.4226			4.4870	
G1006683	4.4116			4.4799	4.4801
G1006677	4.3830			4.4878	
G1006676	4.3786			4.4261	
G1006673	4.4143			4.4643	4.4644
G1006671	4.3722			4.4039	
G1006669	4.4150			4.4487	4.4492
G1006667	4.4152			4.4946	
G1006665	4.4076			4.4663	4.4661

Where:

A = Filter ID number(Serial Number) obtained directly from the filter.
B = Weight of clean conditioned filters from section 11.2.4.4.
C = Space to designate filter for re-weighing by a second analyst as CRFM1 (Section 9.4.3.3) or LD1 (section 9.5.1.3).
D = Clean conditioned filter. Re- weighed by a second analyst as (CRFM2) following section 9.4.3.3.
E = Weight of exposed filters from section 11.3.3.6.
F = Second weight of exposed filter, designated in C as LD1 and re-weighed by a second analyst as LD2 following section 9.5.1.3.

Central Regional Laboratory, RMD, Region 5
Customer Satisfaction Survey

The purpose of this survey is to collect information from you about your recent experience with analytical services received from the Region 5 Central Regional Laboratory (CRL). This survey is divided into 4 sections. Please fill out the information in each section as requested. Then in Section C, supply your name and contact information, and submit the form as directed at the end of the survey.

Section A -- Sample Requests

Please respond to the following questions as accurately as possible. If you have additional comments beyond the space provided, please send them to George Schupp, CRL Sample Coordinator, at ML-10C (See Form Submission).

1. What is your CRL Data Set Number(s) [i.e., the 8-digit number beginning with the 4-digit FY and followed by a 4 digit number]? (Eg.:20010099) _____

2. How easy was it to schedule samples? :

   Easy: ____ Difficult: ____

3. If not "Easy", please provide a brief explanation:

SECTION B -- Analytical Services

Please respond to the following questions concerning the analysis of your samples.

1. Overall, how would you rate the CRL analytical services you received?

   Bad ___ ; Poor ___ ; Fair ___ ; Good ___ ; Excellent ___

2. If not "Good" or "Excellent", what was the problem?

3. What type of analytical services did you request (eg, analysis of samples, etc.; lab audit; document review, other)?

4. Who performed the analytical service(s) (CRL EPA Staff, ESAT)?

SECTION C -- Comments and Suggestions

Please provide specific comments or suggestions for improving any of the aspects of CRL Analytical Services:

If you would like additional information on CRL Analytical Services, The CRL Board of Directors, or the Sample Request Process, please indicate below (✓) and provide your name and mail code).

Analytical Services ____; CRL Board of Directors ____; Sample Requests _____

Name: _____ Mail Code: _____

FORM SUBMISSION

Thank you for taking the time to answer the questions in our survey. You will receive a confirmation message from us shortly.

We will review your survey and respond to any specific concerns or problems ASAP. Your survey and others will be evaluated for trends in an effort to establish efficient support and analytical processes. The process at each stage of the analytical services we provide are critical links towards giving you the kind of timely, accurate analytical services you need. This data will also be tracked by our management and the Board of Directors so additional customer feedback can be used to plan CRL activities in the future.

Please forward this completed survey to:

CRL Sample Coordinator at **Mail code: ML-10C**

Please go to the following e-mail address at: schupp.george@epa.gov to request an electronic copy of this survey or call 312-353-1226.

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated ***B***lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is estimated due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (***J*** is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL ***M***ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is estimated since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te***N***tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or ***Q***uantitation problems, but are confirmed to be qualitatively present in the sample. No value is reported with this qualification flag.
R	This flag applies to analyte data that are ***R***ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. No value is reported with this qualification flag.
U	This flag in used when the analyte was analyzed for but ***U***ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.